Consideration and allowance of the present application is most respectfully requested.

Respectfully submitted,

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Claims

1. A circuit arrangement for generating square pulses, having an edge-triggered flip-flop (1) and at least one comparator (2), whose output is connected to the trigger input of the flip-flop (1), and an energy-storing element (3), which is charged in alternation as a function of the switching state of the flip-flop (1), and at least one switching threshold resistor (4) is connected in series with the energy-storing element (3), at which resistor a voltage generated by the current flowing through the energy-storing element (3) drops, which voltage is fed to the signal input of the comparator (2), characterized in that the energy- storing element (3) is disposed in the transverse branch of a bridge, in each of the four bridge segments of which a respective switch (7, 8, 9, 10) is disposed, and the switches (7, 8, 9, 10) are each connected in pairs in crossover fashion (7, 10 and 8, 9, respectively) by the flip-flop (1), so that the current flow in the transverse branch is reversible, and that the bridge is connected in series with the switching threshold resistor (4), and the junction point of the bridge to the switching threshold resistor (4) is connected to the signal input (2a) of the comparator (2).

2. The circuit arrangement of claim 1, characterized in that the energy-storing element (3) is an inductive resistor.

3. The circuit arrangement of claim 1 [or 2], characterized in that the inductive resistor (3) is a magnetic field probe (12).

4. The circuit arrangement of [one of claims 1-3] claim 1,

characterized in that the magnetic field probe (12) is used to detect the magnetic field of a core (13) of a compensation current sensor.

5. The circuit arrangement of [one of claims 1-4] claim 1, characterized in that the comparator (2) is an analog comparator, which as its output signals furnishes digital signals.

6. The circuit arrangement of [one of claims 1-4] claim 1, characterized in that the comparator (2) is embodied as a digital gate.

7. The circuit arrangement of [one of claims 1-6] claim 1, characterized in that the switches (7, 8, 9, 10) are MOSFETs, of which two (9, 10) are triggered directly and two (7, 8) are triggered via inverters (5, 6) from the outputs (1a, 1b) of the flip-flop (1).

8. The circuit arrangement of [one of claims 1-7] claim 1, characterized in that in the transverse branch of the bridge, a series resistor (11) is connected in series with the energy-storing element (3).